

## IN THE SPECIFICATION

Please amend the paragraph (paragraph 0005) at page 2, line 5 as follows:

a1 [0005] **Figure 1b** is a depiction of a “zoom in” of the first logical transition within **Figure 1a** (which, as alluded to just above, is approximately positioned at time T1 and corresponds to a transition within the data pattern from a “1” to a “0”. Note that the logical high voltage is marked as  $V_{OH}$  and the logical low voltage is marked as  $V_{OL}$ . As such a logical transition from a “1” to a “0”, as seen in **Figure 1b**, typically involves the transitioning of the + signal waveform 102b from  $V_{OH}$  to  $V_{OL}$  and the – signal waveform 103b from  $V_{OL}$  to  $V_{OH}$  (correspondingly, not shown in **Figure 1b**, a logical transition from a “0” to a “1” typically involves the transitioning of the + signal waveform from  $V_{OL}$  to  $V_{OH}$  and the – signal waveform from  $V_{OH}$  to  $V_{OL}$ ).

## COMMENTS

The enclosed is responsive to the Examiner's Office Action mailed on April 21, 2003. At the time the Examiner mailed the Office Action claims 1 through 49 were pending. By way of the present response the Applicant has neither canceled nor amended nor added any claims. As such claims 1 through 49 remain pending. The Applicant respectfully requests reconsideration of the present application and the allowance of claims 1 through 49.

The Examiner has objected to drawings 5, 7, 9 and 11 because, according to the Examiner, labels and voltage levels are "not readable" (See, Examiner's Office Action mailed 4/21/03, pg. 1). The Applicant respectfully submits that each voltage level and label that appears in the Applicant's drawings 5, 7, 9 and 11 as filed and that are referred to by the Applicant's specification is readable at least because the Applicant's true copies of the drawings that were filed with the Application reveal each voltage level and label that is referred to by the Applicant's specification to be readable. The Applicant has included herewith, at the end of this response, copies of drawings 5, 7, 9 and 11 that were originally filed with the present application. Moreover the Applicant has also filed herewith replacement drawings figures 5, 7, 9 and 11 for the Examiner's reference and to provide "overkill" with respect to the readability of the present application's drawings.

The Examiner has objected to page 2, line 7 for the Applicant's reference to "I" rather than "1". Appropriate correction has been made by the Applicant by way of the present response. Therefore, the Examiner's objection should be removed.

The Examiner has rejected each of independent claims 1, 9, 21, 33, 38 and 44 under 35 USC 102(e) as being anticipated by the following portions of U.S. Patent No. 6,377,640 B2 (hereinafter, "Trans"): 1) Col. 42, line 33 through Col. 43, line 26; 2) Col. 44, lines 49 through 58; and, 3) Col. 35, line 63 to Col. 36, line 4. "To anticipate a claim, the reference must teach every element of the claim" MPEP 2131.

The Applicant respectfully submits that the portions of Trans cited by the Examiner fail to disclose specific elements recited by independent claims 1, 9, 21, 33, 38 and 44. In particular, note that each of independent claims 1, 9, 21, 33, 38 and 44 recite the claim element "square root of [a] maximum". The Applicant respectfully submits that the portions of Trans cited by the Examiner fail to disclose, teach or suggest anything that could be fairly construed as the "square root of [a] maximum". Col. 42, line 33 through Col. 43, line 26 of Trans detail the equalization of a Pulse Amplitude Modulated (PAM) signal. The discussion recites: 1) a model of the PAM signal (eqn. 1, Col. 42 line 42); 2) the resultant of the PAM signal when passed through a "CAT5" channel expressed as a discrete convolution (eqn. 2, Col. 42 line 50); 3) the passing of the resultant signal through an equalizer channel – again expressed as a convolution (eqn. 3,

Col. 42 line 56); 4) the ideal equalizer channel output signal (eqn. 4, Col. 42 line 65); 5) the impulse response of the equalizer and "CAT5" channels (eqn. 5, Col. 43 line 4); 6) the impulse response of the equalizer and "CAT5" channels for a special response referred to as "Nyquist's Zero-Forcing" filter (eqn. 6, Col. 43 line 14); and, 7) a function that satisfies the mathematical condition for "Nyquist's Zero-Forcing" filter (eqn. 7, Col. 43 line 19). It is apparent that none of these mathematical teachings describe a "square root of [a] maximum". Col. 44, lines 49 through 58 of Trans discuss a technique for characterizing Inter Symbol Interference (ISI) and zero crossing through analysis of frequency component magnitude and phase. Again, none of these mathematical teachings describe a "square root of [a] maximum". Col. 35, line 63 through Col. 36, line 4 of Trans mentions a "square root" pulse shaping filter but nowhere is a "square root of [a] maximum" described.

Therefore the Applicant respectfully submits that at least because Trans fails to disclose, teach or suggest a "square root of [a] maximum" independent claims 1, 9, 21, 33, 38 and 44 are not anticipated by Trans.

Therefore all pending claims are patentable over Trans.

If any additional fee is required, please charge Deposit Account No. 02-2666. A duplicate of this Response is enclosed for deposit account charging purposes.

Respectfully submitted,

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Originally filed drawings 5, 7, 9 and 11 for the present application.